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EXAMINER

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/888,656

Filing Date: June 26, 2001

Appellant(s): OOHASHI ET AL.

Christopher Lipp
Registration No 41,157

For Appellant

This is in response to the appeal brief filed 11/22/05 appealing from the Office action mailed 06/29/05.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

It is to be noted that the Applicant's Representative makes a notice that claim 15 is not included in the Present Application. Such statement is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

It is to be noted that although the claims appendix mentions that claim 15 is on appeal, such claim was not entered in an After Final Amendment nor it was listed after an RCE was filed by the Applicant on 11/03/04. Thus claim 15 does not exist in the present Application.

(8) Evidence Relied Upon

| | | |
|-----------|--------------|---------|
| 6,181,043 | Kusase et al | 1-2001 |
| 2,711,798 | Aversten | 6-1955 |
| 4,705,972 | Baines | 11-1987 |
| 5,698,929 | Seki et al | 12-1997 |

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

(a) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

(b) Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kusase et al (US 6,181,043) in view of Aversten (US 2,711,798).

Kusase et al discloses stator for a dynamo electric machine having a stator core (see figure 4) and the stator winding having a plurality of conductors 33. Moreover, Kusase et al discloses that the conductors 33 are made of copper (column 3, lines 32, 33) and that the conductors may soldered by using soft solder as a molten metal (column 6, lines 12, 13), which inherently has a lower melting point than copper (material of conductor).

However, Kusase et al does not disclose explicitly having a metal interposed between joined portions.

On the other hand, Aversten discloses for the purpose of avoiding melting metallic members and avoiding oxidizing the melted metal that it is well known in the art to interpose melted metal such as silver between metallic members

(column 2, lines 60-68). Moreover, it is disclosed that the soldered must have a lower melting point than the metallic members (column 2, lines 64, 65).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design a stator winding for a generator as disclosed by Kusase et al and to modify the invention by interposing a molten metal with a lower melting point between two metallic members for the purpose of avoiding melting the metallic members and avoiding oxidizing the melted metal as disclosed by Aversten.

(c) Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kusase et al and Aversten as applied to claim 1 above, and further in view of Baines (US 4,705,972).

The combined stator winding discloses all of the elements above. However, the combined stator winding does not disclose using the alloy of the conductors and an additive metal for a molten metal.

On the other hand, Baines discloses for the purpose of making an efficient connection of a lead wire to a motor contact that it is well known in the art to use copper or a copper alloy as a molten metal (column 1, lines 15-18).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined stator winding as disclosed above and to use a molten metal alloy for the purpose of making an efficient connection of a lead wire to a motor contact as disclosed by Baines.

(d) Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kusase et al, Aversten and Baines as applied to claims 1 and 2 above, and further in view of Seki et al (US 5,698,929).

The combined stator winding discloses all of the elements above. However, the combined stator winding does not disclose explicitly using tin as a molten metal.

Although it is well known in the art to use tin or tin alloy as a soldering metal, Seki et al has provided to show that such use of metals, tin, silver and alloys, are generally used as a molten metal for soldering. Seki et al discloses for the purpose of avoiding reduction in the bonding strength, thus ensuring a proper motor function that silver, tin and alloys may be used as solder metals (column 4, lines 30-41).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design the combined stator winding as disclosed above

and to use tin or silver as solder metals for the purpose of avoiding reduction in the bonding strength, thus ensuring a proper motor function as disclosed by Seki et al.

(e) Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kusase et al, Aversten and Baines as applied to claim 2 above and further in ordinary skill in the art.

The combined stator discloses all of the elements above. However, the combined stator does not disclose using the material for the additive metal.

It would have been obvious to use the material use for the additive metal (Cu-P), since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. In *re Leshin*, 125 USPQ 416.

(10) Response to Argument

(a) Kusase et al discloses a stator for a dynamoelectric machine (see title of invention 7 figure 1) having a stator core with a plurality of slots and windings (see figure 6). The windings having a plurality of conductors 33 (see figures 5A, 4, 6). Moreover, Kusase et al teaches that it is well known in the art to use solder to join together the conductors 33 (column 6, lines 12, 13).

The Aversten reference was mainly use to show that it is well known in the art to join two metal pieces by placing soldered between the metal pieces and the solder having a lower melting point than the metal pieces for having a process that does not melt either of the metallic members and does not oxides and vaporizes the melted metal or metal alloy (see Aversten, column 2, lines 60 – 68). Clearly, it has been known to place solder between two metallic members for the purpose of joining such two metallic members. Aversten provide a strong motivation for using a solder with a lower melting point than the metallic members for not melting the metallic members (column 2, lines 66, 67) and for specifically interposing the solder between the two metallic members for not oxidizing or vaporizing the melted metal (column 2, line 68).

Respectfully, placing solder or an adhesive substance between two elements for binding or joining together the two elements is well known in the art and in other fields (e.g. binding two pieces of papers together would require to place/interpose glue in between the papers). Aversten teaches the basic concept of joining together two metal pieces, that is, interposing soldered between the metal pieces.

Anyone with ordinary skill in the art would use the teachings of Aversten for joining together metal pieces of connectors for a device (e.g. stator).

(b) In response to applicant's argument that Kusase et al teaches away from the feature of the present invention, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

(c) In response to applicant's argument that it would not been obvious to combine the Kusase et al reference with the Aversten reference, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

(d) In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

(e) In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Kusase et al discloses all the main features of the invention, even discloses using solder for joining the metallic members of the stator. Aversten teaches using solder for joining metallic members, thus providing a teaching of interposing soldered between metallic members for joining two metallic members.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

JCG

Conferees:

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